

Residential Low-Income Program

1. Program Description

This program encourages comprehensive energy-efficiency improvements in existing low-income housing. The program provides funding to the South Dakota Department of Human Services (DHS) to supplement its existing efforts delivering the federally funded Weatherization Assistance Program (WAP). MidAmerican will implement the program in South Dakota beginning in 2008.

2. Program Operations

The program will work through DHS's existing network of community action program (CAP) agencies, which qualify households and deliver services. MidAmerican will work with DHS and the agencies to define energy-efficiency measures to be qualified and installed through the program. The agencies will provide free energy audits to identify appropriate measures as well as free on-site installation of the measures themselves. Measures will address building shell, water heating and lighting.

Key steps the CAP agencies will take to manage program participation include:

- Promoting the program,
- Qualifying customers for participation,
- Identifying appropriate cost-effective energy-efficiency measures,
- Administering and managing the installation of qualifying measures,
- Providing program data to the company within the applicable timeframe and
- Cooperating with program evaluation efforts.

3. Value Proposition

Customers participating in the low-income program receive the following main benefits.

- They receive *immediate savings* through the direct installation of low-cost lighting and water heating measures.
- They receive *significant savings, increased comfort* and *increased housing values* through building shell improvements.
- They receive *trustworthy energy-efficiency advice* from agencies that have no vested interest in selling the customer any specific products.

4. Customer Targets

To participate in the program, households must satisfy the following criteria:

- Qualify for income and other guidelines of South Dakota's WAP,
- Receive primary heating fuel from the company and
- Reside in South Dakota.

5. Trade Ally Targets

Beyond the CAP agencies and their equipment suppliers, there are no additional trade allies supporting this program.

6. Eligible Measures

MidAmerican will work with the CAP agencies to define a set of cost-effective energy-efficiency measures to include in the program. At this point, MidAmerican expects measures to include insulation, compact fluorescent lamps and water heat measures (low-flow showerheads, faucet aerators, and pipe and tank insulation).

7. Financial Incentives

Table 1 outlines the schedule that MidAmerican uses in its Iowa program to reimburse CAP agencies for qualified measures. MidAmerican will work with DHS and the CAP agencies

to develop a similar schedule for the South Dakota program. However, MidAmerican performs an annual review of qualifying equipment and rebate levels and reserves the right to adjust measures and reimbursement levels in the future as market conditions change.

MidAmerican's intent is to cover 100 percent of the costs required to install eligible measures and also to cover the administrative costs required by DHS and the agencies to operate the program. MidAmerican will require reporting and documentation of weatherized homes so that energy savings can be tracked and recorded.

Table 1:
Iowa Reimbursement Limits for Low-Income Measures

Measure	Minimum Efficiency Level and Performance Criteria (if applicable)	Reimbursement Limit
Low-Flow Showerheads	2.5 GPM	\$10
Faucet Aerators	1.5 GPM Brass with Chrome Finish	\$3
Pipe Insulation	Rigid 0.5" foam with 0.75" diameter	\$3
Compact Fluorescent Light Bulbs	5 to 30 watts ENERGY STAR®-labeled	\$7 each
Circleline Compact Fluorescent Lights	30 watts ENERGY STAR-labeled	\$10 each
Insulation Measures	Includes wall, attic, floor or foundation, and bandjoist insulation or a combination thereof*	\$2,500

*CAPs may request a waiver when home size requires additional insulation to achieve the required goal.

8. Participation

Table 2 provides program participation assumptions.

Table 2
Participation

	2008	2009	2010
Total Households	49	76	76
Electric Measures			
Electric Customers*	2	3	3
Natural Gas Measures			
Gas Customers	49	76	76

*Electric customers are expected to have gas heat, but electric cooling, lighting and appliances.

9. Energy and Demand Savings

Table 3 provides energy and demand savings goals.

Table 3
Cumulative Energy and Demand Savings

	2008	2009	2010
Electric Impacts			
Annual Energy (kWh)	1,150	2,876	4,601
Peak Demand (kW)	1	1	2
Natural Gas Impacts			
Annual Energy (therms)	7,780	19,760	31,740
Peak-Day Demand (therms)	110	270	440

10. Budget

Table 4 provides program budget assumptions.

Table 4
Budget

	2008	2009	2010
Electric Budget			
Planning & Design	\$0	\$0	\$0
Administration	\$0	\$0	\$0
Advertising & Promotion	\$0	\$0	\$0
Customer Incentives	\$2,000	\$3,000	\$3,000
Monitoring & Evaluation	\$0	\$0	\$0
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Electric Total	\$2,000	\$3,000	\$3,000
Natural Gas Budget			
Planning & Design	\$14,000	\$2,000	\$2,000
Administration	\$14,000	\$20,000	\$20,000
Advertising & Promotion	\$4,000	\$4,000	\$4,000
Customer Incentives	\$41,000	\$65,000	\$66,000
Monitoring & Evaluation	\$1,000	\$1,000	\$1,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Natural Gas Total	\$74,000	\$92,000	\$93,000
Total Budget			
Planning & Design	\$14,000	\$2,000	\$2,000
Administration	\$14,000	\$20,000	\$20,000
Advertising & Promotion	\$4,000	\$4,000	\$4,000
Customer Incentives	\$43,000	\$68,000	\$69,000
Monitoring & Evaluation	\$1,000	\$1,000	\$1,000
Equipment	\$0	\$0	\$0
Installation	\$0	\$0	\$0
Total	\$76,000	\$95,000	\$96,000

11. Cost-Effectiveness Results

Table 5 provides program cost-effectiveness results.

Table 5
Cost-Effectiveness Results

Lifecycle Societal Benefits (NPV)	\$ 361,445
Lifecycle Societal Costs (NPV)	\$ 252,938
Net Societal Benefits (NPV)	\$ 108,507
Benefit-Cost Ratio	1.43